



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

A new *Polygonum* from Bolivia.

BY JOHN K. SMALL.

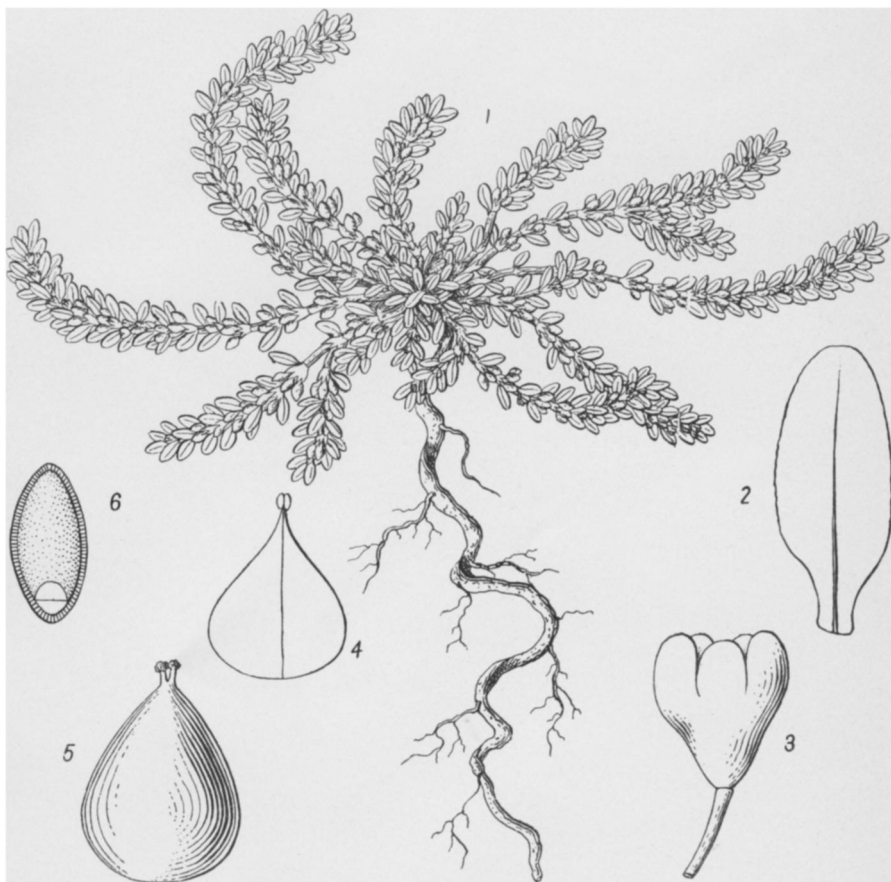
(PLATE 293.)

POLYGONUM FALLAX n. sp.

Annual or perennial by a long somewhat spiral root, low, dull green. Stem more or less densely and caespitously branched near the top of the root, the branches spreading or prostrate and ascending, 2–12 cm. long, very leafy except at the base; leaves varying from ovate-oblong to obovate-oblong, 3–5 mm. long, obtuse, somewhat revolute and crisped, narrowed at the base, wrinkled above, slightly nerved beneath, the mid-nerve keeled beneath, especially near the base, obliquely articulated at the base of the ocreae; ocreae funnelform, 4 mm. long, imbricated, especially toward the ends of the branches, at length lacerate to a little below the middle; flowers numerous and often crowded; calyx 2.5 mm. long, 5-parted, 4 segments green, with whitish margins, 1 wholly included and hyaline, all rounded at the apex, stamens usually 5 or 6; filaments dilated their whole length into a broadly ovate hyaline petal-like organ; style two-parted, .4 mm. long; achene lenticular, ovoid, 2.5 mm. long, reddish, nearly smooth, shining, its faces convex, its angles rounded, sometimes faintly margined.

A species of especial interest collected in Bolivia by Mr. Bang and communicated to me by Dr. Rusby. Although it belongs to the subgenus *Avicularia*, its fruit possesses characters heretofore unknown in that subgenus. The several natural groups of *Polygonum* bear two kinds of achenes, some lenticular, others triquetrous, while in a few cases both forms appear. *Avicularia* has been known to produce only the triquetrous achenes developed from a three-angled ovary with a more or less three-branched style, but in *Polygonum fallax* we are confronted with a species of subgenus *Avicularia* bearing only lenticular achenes developed from lenticular ovaries with two-branched styles.

A second peculiarity is exhibited in the pericarp which most closely resembles that of the different members of the subgenus *Duravvia*, both in texture and color, but the styles are not those of that group. Another interesting point is found in the androecium; the filaments are dilated into broad petal-like organs, which form a cup around the ovary. I know no other case like this in the



POLYGONUM FALLAX SMALL.

genus. Notwithstanding these exceptions, the species for the present must be referred to *Avicularia* and forms the first exception to its normal morphology as far as I have observed, and an interesting one.

Explanation of Plate 293.

1. Whole plant, natural size.
2. Leaf, enlarged.
3. Flower, enlarged.
4. A stamen, enlarged.
5. Achene, enlarged.
6. Cross-section of achene, enlarged.

The Relation between the Genera *Thysanella* and *Polygonella* as shown by a hitherto unobserved Character.

BY JOHN K. SMALL.

The genus *Thysanella* has generally, and apparently without good reason, been included in *Polygonum*.

In a former paper * I stated that *Thysanella* was a perfectly distinct genus, related to *Polygonella* and not to *Polygonum*.

A glance at *Thysanella fimbriata* and any member of the genus *Polygonella* ought to be sufficient to convince any one of the strong relationship between the two genera. The habits of the two are almost identical, while the vegetative organs of *Thysanella* much more closely resemble those of *Polygonella* than they do any member of *Polygonum*.

Coming to special morphological characters let us first consider the flower. Here we find the special development in the inner series of sepals; likewise in *Polygonella* it is the inner sepals that develop special organs. In *Polygonum* the outer sepals are specialized if any development at all takes place, the inner series being practically unmodified.

Besides the foregoing considerations I have lately noticed a character in both the genera *Thysanella* and *Polygonella* which is possessed by no other member of the family *Polygonaceae*. In the

* Mem. Dept. Bot. Col. Coll. 1: 9.